

## ABSTRACT

The present invention relates to a novel neolignan (NEOLASA-I) 3-ethyl-2-methyl-3-(2'', 4'', 5''-trimethoxy-phenyl-1-(2',4',5'-trimethoxy) phenyl-1-(2',4',5'-trimethoxy)phenyl-1-propene and a process for the preparation of high purity, higher yield neolignan,  $\alpha$ -asarone, 2,4,5-trimethoxy-phenyl propionone from  $\beta$ -asarone or  $\beta$ -asarone rich *Acorus calamus* oil containing  $\alpha$  and  $\gamma$  - asarone by hydrogenating and dimerizing by treatment with DDQ in presence of an organic acid.